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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

CARIASQ.A

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 09/16/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/997,411

Applicant(s)
YONEDA

Examiner
Alan Cariaso

Group Art Unit
2875



☒ Responsive to communication(s) filed on Jul 15, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13 is/are pending in the application.

Of the above, claim(s) 3, 7, 9, 11, and 13 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1 and 4-6 is/are rejected.

☒ Claim(s) 2, 8, 10, and 12 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

ALAN CARIASO
PRIMARY EXAMINER

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al (US 5,325,231).

A lighting unit (40, 37) comprising a ring-shaped transparent body (29, fig. 4) for light diffusion and a plurality of illuminants (41, fig. 4), the transparent body having a light emission surface (bottom surface of "29") for illuminating a surface of a product (O, fig. 1a) to be examined when the product is located at an under side of the lighting unit (37,40), a center open hole ("29" is annular) inherently having first and second ends for performing visual inspection (25, 156) of the surface of the product (O, 182) to be examined from an upper side of the lighting unit (fig. 22) through the center hole, and a plurality of transparent body surfaces (fig. 9) each having a reflective layer (89a,89b) so as to reflect and return light into the transparent body (89),

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wherein the light emission surface of the transparent body (29) is a ring-shaped plane (fig. 4) and a concave face of a bowl shape (fig. 9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al (US 5,325,231) in view of Rosenberger et al (US 3,875,626).

Tamura discloses applicant's invention except the light emission surface of the transparent body being a concave face of a hollow truncated cone shape.

Rosenberger teaches the use of an annular transparent body (17) having a concave face of a hollow truncated cone shape (see figure) for the purpose of emitting light guided through the transparent body and directing towards the product (41) to be examined. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the annular transparent body of the lighting device of Tamura et al to include a concave light emission surface shaped of a hollow truncated cone as taught by Rosenberger et al in order to emit light towards the product to be examined.

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Allowable Subject Matter

5. Claims 2, 8, 10, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments and amendment with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bauersfeld et al (US 1,943,510) shows an annular transparent body having concave bowl-shaped light emitting surface directing light toward an object to be examined. Polidor et al (US 5,690,417) show an annular lens (32) adjacent a plurality of light sources directing light toward an object to be examined. King et al (US 5,828,449) show an annular diffusing lens adjacent plural light sources and a light detection means with image processor to capture light of the object to be examined. Hata et al (US 4,793,707) show a lighting unit with light detecting apparatus that includes light emitting transparent bodies with embedded light sources (figs. 6, 7, 9).

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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (703) 308-1952.

AC

September 14, 1999


ALAN CARIASO
PRIMARY EXAMINER